



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,813	06/23/2003	Natarajan Ramachandran	D-1181 R1	9839
28995	7590	06/03/2005	EXAMINER HESS, DANIEL A	
RALPH E. JOCKE walker & jocke LPA 231 SOUTH BROADWAY MEDINA, OH 44256			ART UNIT 2876	PAPER NUMBER

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8m

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/601,813	RAMACHANDRAN	
	Examiner	Art Unit	
	Daniel A. Hess	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 3/17/2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

This action is in response to applicant's correspondence of 3/17/2005.

### ***Remarks***

Claim 38 is restricted out of the instant case. The fundamental mode of operation of claim 38, which is to take user input to determine if the appearance of the ATM has changed, is different from the remainder of the claims. This line of subject matter can only be pursued in another case. If the applicant attempts to introduce this subject matter in the instant case again, the examiner will make an automatic restriction based by original prosecution and restrict out any such claims.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-37 have been considered but are moot in view of the new ground(s) of rejection. Because there are new grounds of rejection, the present action is made non-final.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mair et al. (US 6,367,695).

Re claim 1: [Note: For many of the instant claims, Mair et al. may be a 102 reference. The courts have found that anticipation is the epitome of obviousness, and therefore a 102 reference can also be the basis for a 103 rejection.] An ATM machine is shown (figure 1), with a housing, a user interface, an input device 16 and at least one output device 18 or 20. There is a card reader slot 12 and associated card reader. There is (figure 2; see associated text) a radiation emitter 34 and detector 40 (see column 4, lines 45-60) for infrared radiation.

Mair teaches (columns 4 and 5):

“FIG. 2 shows a schematic cross-section of a fascia of an ATM 30, including an arrangement in accordance with an embodiment of the present invention whereby such attempted frauds may be detected. Located beneath the keypad 16 is an infra-red emitter 34, connected to a power source 36 and an encoder 38. Located vertically above the emitter 34 in the ATM fascia is an infra-red detector 40, connected to the power source 36 and a decoder 42. Both the encoder 38 and decoder 42 are linked to a comparator 44. In this example the emitter 34 is positioned beneath the keypad 16, portions of which are infra-red transparent, such that the emitter 34 is concealed. The detector 40 is concealed behind an infra-red transparent monitor screen 46.

Coded signals are emitted by the emitter 34 at timed intervals, which signals pass through the keypad 16 to the detector 40. The detected signals

Art Unit: 2876

are passed to the decoder 42 which communicates with the comparator 44 to confirm that the detected signals correspond to those emitted by the emitter 34.

If a false keypad 21 is placed over the ATM keypad 16, the signals from the emitter 34 are interrupted and do not reach the detector 40. This condition causes the comparator 44 to issue an alarm signal to activate an alarm circuit 48 and thus alert the ATM operator, and de-activate the ATM.

To accommodate normal usage of the ATM 30, the comparator 44 incorporates a time delay which prevents the issue of an alarm signal until the detector 40 has not received signals from the emitter 34 for a predetermined interval. The interval is selected such that use of the keypad 16 by a user, which will result in interruption of the signals reaching the detector 40, will not result in issue of spurious alarm signals.

It will be apparent to those of skill in the art that the embodiment of the invention as described above serves to prevent attempted frauds utilizing false keyboards to obtain users' PINs.

FIG. 3 shows a schematic cross-section of a fascia of an ATM 100, including an arrangement in accordance with a second embodiment of the present invention whereby attempted fraud by overlaying a card reader may be detected. Located behind the card reader slot 12 is an infra-red detector 102, connected to a power source 104 and an encoder 106. Located vertically above the detector 102 in the ATM fascia is an infra-red emitter 108, connected to the power source 104 and a decoder 110. Both the encoder 106 and decoder 110 are linked to a comparator 112. In this example the detector 102 is positioned at

Art Unit: 2876

the top edge of slot 12 behind a fascia portion 114 which is transparent to infra-red radiation, but not transparent to visible light, such that the detector 102 is concealed from a user's view by portion 114. The emitter 108 is concealed behind an infra-red transparent monitor screen 116 and emits infra-red radiation over a wide angle.

Coded signals are emitted by the emitter 108 at timed intervals, which signals pass through portion 114 to the detector 102. The detected signals are passed to the decoder 106 which communicates with the comparator 112 to confirm that the detected signals correspond to those emitted by the emitter 108.

If a false sheet 118 (shown in FIG. 3 by a broken line) having a false card reader slot is placed over the lower part of the ATM, the signals from the emitter 108 are interrupted and do not reach the detector 102. This condition causes the comparator 112 to issue an alarm signal to activate an alarm circuit 120 and thus alert the ATM operator, and de-activate the ATM."

Comparator 44 is connected to an alarm 48 and constitutes the recited controller configuration.

Re claim 2: Naturally the ATM can dispense currency.'""

Re claim 3: Mair et al. teaches (column 5, lines 50-65) :

" It will be apparent that various modifications and improvements may be made to the arrangements described above without departing from the scope of the invention. For example, **any suitable form of signal** may be used to detect

Art Unit: 2876

the presence of an unauthorized keyboard or the like, in addition to or **as an alternative to infra-red emissions**. Further, the relative location of the emitter and detector may be varied; or a signal may be passed **across the surface of a keypad**, rather than through the keypad. ”

Clearly in this arrangement it would have been obvious to employ visible light for at least the reason that it can deter would-be thieves from even attempting to tamper with the ATM.

Re claim 4: The emitter works on an essentially intermittent basis, and this will at times be on insertion and withdrawal.

Re claims 5 and 6: Clearly (column 3, lines 55-65) a comparison is made between two states ‘object present’ and ‘object absent’: This requires a data store having at least a baseline for comparing these two states.

Re claim 7: In the event of a detection event (column 5, lines 40-45) an ATM operator is notified.

Re claim 8: ATM is deactivated if an object is detected, this would certainly somehow, be reflected on the user interface.

Art Unit: 2876

Re claim 9: This would have been obvious because blocking of the sensors may be accidental, and the user will wonder otherwise why an alarm is suddenly going off.

Re claim 10: The limitations of the claim actually say very little. In particular, a computer processor memory changes all the time.

Re claim 11: The phrase “surroundingly illuminate” is broad and do not reflect any particular illumination pattern; an LED emitter, which is the simplest kind, can be expected to “surroundingly illuminate.”

Re claim 12: See discussion re claims 5/6.

Re claim 13: One feature (column 5, lines 45-55) is that under certain circumstances of normal use, interruption of the signals will not lead to an alarm. This is a form of fuzzy logic.

Re claim 14: See figure 2.

Re claim 15: This feature of ‘extending in surrounding relation’ is illustrated by the concavity of the ATM shown in figure 1.



Art Unit: 2876

Re claim 16: See discussion re claim 1. As for controller 'selectively causing the sensing device to operate,' note that (column 5, lines 30-40) signals from the sensing device are intermittent.

Re claims 17 and 18: See discussion re claim 1 above.

Re claim 19: See discussion re claims 1 and 16 above.

Re claims 20-22: See discussion re claims 5-9 above.

Re claim 23: See discussion re claim 1 above, as well as discussion of fuzzy logic re claim 13 above.

Re claim 24: See discussion re claim 14 above.

Re claim 25: See discussion re claim 11, above.

Re claim 26: See discussion re claims 1 and 16 above.

Re claim 27/28: See discussion re claim 9, above.

Re claim 29: See figure 2 of Mair et al.

Re claim 30/31: See discussion re claims 5/6.

Re claim 32: See discussion re claims 1 and 16.

Re claim 33: See discussion re claim 4, above.

Re claim 34: See discussion re claim 11, and note that currency dispensing is inherent for the machine is an ATM.

Re claim 35: In Mair et al. the machine deactivates if there is a detection of an illicit reading device (column 5, line 45). If the card is in the ATM when it is deactivated it would likely remain in the ATM.

Re claim 36: Records are normally kept of ATM transactions; if a machine is compromised, this would normally be traceable, and the natural response by a user to knowledge that their account may have been compromised would have been to cancel the account. This examiner has taken that kind of action in the past.

Re claim 37: See discussion re claim 36: If a user is not sure if their account has been compromised, the natural response by the user would have been to monitor the account over a

Art Unit: 2876

period of time to determine whether the account has been compromised. This examiner has taken that kind of action in the past.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A. Hess whose telephone number is (571) 272-2392. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DH

5/30/2005

**DANIEL STCYR  
PRIMARY EXAMINER**

